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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/024,716

12/21/2001

Chang-Hyung Cho

1293.1291

5906

21171 7590 01/03/2011

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EXAMINER

ZHAO, DAQUAN

ART UNIT

PAPER NUMBER

2484

MAIL DATE

DELIVERY MODE

01/03/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/024,716	Applicant(s) CHO, CHANG-HYUNG	
	Examiner DAQUAN ZHAO	Art Unit 2484	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 54-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 54-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/29/2010 have been fully considered but they are not persuasive.
2. Applicant argues, see pages 3-5 of the remark, Rainsford fails to teach the "auxiliary information which is not included in the digital television signal." The Examiner disagrees.
3. Applicant states, see page 3 of the remark, "However, it is respectfully submitted that Rainsford only discusses that Program Specific Information (PSI) labels (should be table) are sent as separate packets within the transport stream 1001." The claimed "digital television signal" is a broad term; It covers the video packet within the transport stream 1001. Although the Video packet and the PSI packet are multiplexed together as a transport stream 1001, these packets are individual packet, which are separated. Therefore, the teaching of Rainsford meets the requirement of the claimed invention.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
5. Claim 57 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one

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skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

For claim 57, there's no disclosure in the specification for "wherein the auxiliary information and digital television signal are respectively received by different channels"

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 54-55 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroahi et al (EP 1063797, see the previous office action for this reference) and further in view of Rainsford (US 7,158,676).

For claim 54, Hiroahi et al teach a method comprising: receiving a digital television signal and auxiliary information (e.g. paragraphs 97-99); determining category information based on the received auxiliary information (e.g. column 10, lines 5-17, video program are categorized into categories such as movies, sports, entertainment...etc under "retrieval by title"); and searching the digital television signal based on the determined category information (e.g. paragraph 125, and figures 8-9).

Hiroahi et al do not further disclose auxiliary information which is not included in the digital television signal; Rainsford teach auxiliary information which is not included in

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the digital television signal (e.g. column 12, lines 8-19, PSI are sent separately from the transport stream). It would have been obvious to one ordinary skill in the art at the time the invention was made to distribute data separately to the receiver for the receiver to easily identify the channel carrying the video program.

For claim 55, Hiroahi et al teach category information includes a program title (e.g. 32, 125, figures 8-9, program name 903).

Claim 57 is rejected for the same reasons as discussed in claim 54 above, wherein Hiroahi et al also teach the auxiliary information and digital television signal are respectively received by different channels (e.g. figure 5, paragraphs 105-111).

8. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroahi et al (EP 1063797, see the previous office action for this reference) and Rainsford (US 7,158,676), as applied to claims 54-55 and 57 above, and further in view of Chen (US 2002/0136538).

see the teaching of Hiroahi et al and Rainsford above.

For claim 56, Hiroahi et al and Rainsford do not disclose a compression ratio is determined based on the category information, and the received digital television signal is stored in accordance with the determined compression ratio. Chen teach a compression ratio is determined based on the category information, and the received digital television signal is stored in accordance with the determined compression ratio (e.g. figure 2 and paragraph 15). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the teaching of Chen into the

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teaching of Hiroahi et al and Rainsford to compresses the A/V signal at a compression ratio according to the category item selected for the A/V signal to efficiently utilize the limited storage space (Chen, paragraph 7).

There's no new ground(s) of rejection. Accordingly, THIS ACTION IS MADE FINAL. See MPEG § 706.07 (a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136 (a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing data of this action. In the event a first reply is filed within TWO MONTHS of the mailing data of this action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period. Then the shortened statutory period will expire on the data the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing data of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the data of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daquan Zhao/
Examiner, Art Unit 2484

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2484